TABT.E 0— continued.

. 1 s s	•-JEC ££ ®J £§	Metal. C	Si	p	Mn	Slag. Mn	Fe	Fe % on Mn	
		Per cent.	Per cent.	Per cent.	Per cent.	Pei-cent.	Pel-cent.	Per-cent.	
21	at. (65- !,	2-10 0-96	o-oi o-oi	trace j»	0-27 0-48	— 6-61	— 4-96	75	Charge 15,360 kg. pig iron and 3,840kg. scrap; "hot ; Mn reduced.
		0-55	0-04	0-03	0-34			78	
22	30 1	0*25	0-04	0-02	0-45	9-37	7-45		Charge 23, 1 52 kg. pig iron ; hot ; Mn reduced.
23	35 |	0-16 0-06	trace 3 J	trace »	0-41 0-41	15-50	15-61	100	Charge 9,600 scrap and briquettes, consisting of manganese ore, coke and tar; very hot; Mil in equili-brium.
f) A Z * x	OA J O\J i	1*88 0-56	0-02 0-02	0-02 o-oi	0-42 0-36	— 10-44	— 15-65	150	Charge 19,232 kg. pig iron ; hot ; Mn oxidised out of bath.
2 ~ u	101 10} \	4-01 3-68	0-28 0-09	0-87 0-38	0-87 0-38	— 17-67	— 30-00	169	Charge 20, 59 2 kg. pig iron ; furnace without gas, refined only by ore ; temperature low ; Mn oxidised.
9 ft - £ O	95 I 2Sl	3-84 3-74	,0-14 0-07	0-07 0-02	0-56 0-35	— 18-43	— 18-62	101	20,080 kg. pig iron ; warm ; Mn oxidised.
27	20{	3-79 3-57	0-34 0-JD 9	0-03 0-66 0-02 0-35		15-92	17-79	112	Charge 2 1,520 kg. pig iron ; warmed a little ; Mn oxidised.
28	55 |	3-35 2-51	0-05 0-05	O'Ol 0-28 0-01 0-24		8-82	26-49	300	Charge 17,408 kg. pig iron; bath warm ; Mn oxidised.

2 9	05 \	3- 33	0- 09	0-02 0-31		—	—	16 6	Charge 19,248 kg. pig iron; cool ;
	<	2- 83	0- 04	0-01 0-21		11- 81	19- 65		Mn oxidised.
3 0	30]	3- 33	0- 02	0-01 0-34		6- 82	15- 04	22 0	Charge 23,152 kg. pig iron; hot; Mn oxidised.
		2- 83	0* 02	0-01 | 0-27					
3 1	55 - I	1- 94	tra ce	o- oi	0- 52	16- 02	23- 19	14 5	Charge 9,600 kg. scrap and briquettes of
		1- 36		o- oi	0- 34				manganese ore, coke, and tar ; warm ; Mn oxidiyod.
S 9 ^ - »i j	35 {	1- 55	0- 02	0* 02	0- 61	—	. — .	13 3	Bath cool ; Mn oxidised.
		1- 00	0- 02	o- oi	0- 50	11- 12	14- 82		

This table indicates, however, at least equally clearly another condition which favours the reduction of manganese from the slag.

This condition is mainly the exhaustion of metallic oxides in the slag, and therefore of oxygen.

A reduction of Mn from the slag took place in all cases in which percentage of iron in the slag was 12 per cent, or below, which slags thus were low in oxygen.

In all cases in which maganese had gone over from bath to the slag, the iron content of the latter exceeded 15*6 pex cent.

v 2